EBIS Beamline Layout Meeting Minutes 1-26-2006

Attendees: D. Rapraria, J. Alessi, J. Ritter, R. Duffun, L Snydstrup, M .Mapes

1. The headwall near the LINAC plug door will be used as a reference point for the beamline "z" location.
2. The minimum aperture for the two large dipole magnets was determined to be 110mm Vertical and 102mm horizontal. A curved rectangular cross section stainless steel chamber will be designed. A tantalum or tungsten strip will be mounted inside the chamber at the outer radius and act as a beam absorber.
3. Between the two large dipole magnets an instrumentation box with a harp will be installed after the quad magnet. A horizontally movable jawed slit will be installed after the harp
4. The pipe in the sleeve through the wall will be a 6" diameter pipe with NEG strip and be offset in the vertical direction to center the clear aperture between the NEG strip and the top of the pipe.
5. We will check to see if there is enough space to mount the buncher and a quad between the penetration pipe and the LTB line on the Booster side of the tunnel .
6. There will be a double sided conflat flange current transformer installed at the exit of the NEG pipe through the wall on the Booster side
7. Bob Duffin will provide Deepak with the dimension from the intersection point of HITL and the Booster ring to the apex point of the last large dipole magnet.
8. All quads in the transport line will have 4" pipes
9. The standard Diag.box from HITL will be installed near the headwall on the LINAC side
10. We need a beam plug at the LINAC side headwall. (Assume this for now. Alessi will check with Beavis, etc.).
11. Shielding may be needed to block the space between the penetration pipe and the NEG pipe.
12. The MEBT will have 1-1/4" pipe and have 2-3/4" conflat flanges. The gate valves will be mounted at each end. The mating chambers will have 2-3/4" flanges with space for studs and nuts.
13. A chamber will be needed for the Fast FC and emittance mounting after the linac.
14. Snydstrup and Raparia will evaluate heat loads on tantalum insert in dipole chamber, on Faraday cups, and on adjustable horizontal slits. Beam power, beam sizes, to determine temperature rise on surface (average, and during a pulse).
15. Snydstrup will determine whether cup/harp assembly can fit in to 4" vs. 6" pipe.